

NPDES Permit No. IL0021971

Notice No. BDF:11112101.bah

Public Notice Beginning Date:

Public Notice Ending Date:

National Pollutant Discharge Elimination System (NPDES)  
Permit Program

PUBLIC NOTICE/FACT SHEET  
of  
Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA  
Division of Water Pollution Control  
Permit Section  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276  
217/782-0610

Name and Address of Discharger:

Springfield Metro Sanitary District  
3000 North Eighth Street  
Springfield, Illinois 62707

Name and Address of Facility:

Sugar Creek STP  
3300 Mechanicsburg Road  
Springfield, Illinois 62707  
(Sangamon County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. Interested persons are invited to submit written comments on the draft Permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the Permit applicant. The NPDES Permit and notice numbers must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft Permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft Permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final Permit is issued. For further information, please call Brant Fleming at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating domestic wastewater for the City of Springfield and other communities.

The length of the Permit is approximately 5 years.

The main discharge number is 008. The seven day once in ten year low flow (7Q10) of the receiving stream, Sugar Creek is 1.5 cfs.

The design average flow (DAF) for the existing facility is 10.0 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 25.0 MGD. Treatment consists of screening, grit removal, activated sludge process, polishing lagoons, aerobic digestion and excess flow treatment. The design average flow (DAF) for the proposed facility is 15.0 million gallons per day (MGD) and the design

maximum flow (DMF) for the proposed facility is 37.5 MGD. Treatment consists of diversion of 37.5 MGD to screening, grit removal, activated sludge process, aerobic digestion, chemical addition facilities and all flows exceeding 37.5 MGD and up to 112.5 MGD are diverted to separate facilities consisting of grit removal, bar screening, clarification and disinfection.

This treatment works has an approved pretreatment program. There is 1 noncategorical SIUs and 1 CIUs.

This Reissued Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

This Permit recognizes and continues the year-round disinfection exemption approved by the IEPA on May 1, 1989 and reauthorized July 5, 2011. It is the IEPA's tentative decision that under Illinois Pollution Control Board regulations, the following reach of waterbody is not classified for primary contact use activities and is not subject to the fecal coliform water quality standard of 35 Ill. Adm. Code 302.209.

This draft permit does not contain requirements for disinfection of the discharge from discharge numbers(s) 008. Sugar Creek has been determined to be unsuited to support primary contact activities (swimming) due to physical, hydrologic or geographic configuration. Anyone knowing of primary contact activities occurring within this water segment is invited to submit comments to the IEPA. Comments should give the nature of the activities (i.e swimming, fishing, canoeing, etc.), the location and months of the year when these activities have been observed. The IEPA is also interested in obtaining information on the proximity of residential dwellings and the accessibility of the public to this water segment. Anyone with such information is asked to submit comments to the IEPA on this draft permit action. Instructions for submitting comments are contained earlier in this document.

Application is made for the existing discharge(s) which are located in Sangamon County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

<u>Discharge Number</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
008	Sugar Creek	39° 47' 37" North	89° 34' 55" West	General Use	C
009	Unnamed tributary to Sugar Creek	39° 46' 25" North	89° 37' 41" West	General Use	Unrated
010	Sugar Creek	39° 47' 37" North	89° 34' 55" West	General Use	C
011	Sugar Creek	39° 47' 37" North	89° 34' 55" West	General Use	C

This permit authorizes discharge from 2 CSOs in accordance with 35 Ill. Adm. Code 306.305 into the following waters:

1. Unnamed tributary to Sugar Creek
2. Sugar Creek

To assist you further in identifying the location of the discharges(s) please see the table below:

<u>Discharge No.</u>	<u>Name</u>
009	Harvard Park Combined Over Flow
011	STP CSO

The stream segment(s), EOA-06, receiving the discharge from outfall(s) 008, 010 and 011 are on the 303(d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

<u>Potential Causes</u>	<u>Uses Impaired</u>
Alterations in stream-side vegetative cover (non-pollutant), boron, and total phosphorus	Aquatic life

To assist you further in identifying the location of the discharge(s) please see the attached map.

The discharge(s) from the facility is (are) proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): STP Outfall 008 (Existing)

Load limits computed based on a design average flow (DAF) of 10.0 MGD (design maximum flow (DMF) of 25.0 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

<u>Parameter</u>	<u>LOAD LIMITS lbs/day</u> <u>DAF (DMF)*</u>			<u>CONCENTRATION</u> <u>LIMITS mg/L</u>			<u>Regulation</u>
	<u>Monthly</u> <u>Average</u>	<u>Weekly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Weekly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	
CBOD <sub>5</sub>	834 (2085)		1668 (4170)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids	1001 (2502)		2002 (5004)	12		24	35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform	Monitor only (May through October)						35 IAC 309.146
Chlorine Residual	0.05						35 IAC 302.208
Ammonia Nitrogen:							35 IAC 355 and 35 IAC 302
As (N)							
March	125 (313)	317 (792)	450 (1126)	1.5	3.8	5.4	
April, May, Sept, Oct	125 (313)	317 (792)	334 (834)	1.5	3.8	4.0	
June-August	117 (292)	292 (730)	334 (834)	1.4	3.5	4.0	
Nov.-Feb.	250 (626)		450 (1126)	3.0		5.4	
Total Phosphorus (as P)	Monitor Only						35 IAC 309.146
Total Nitrogen	Monitor only						35 IAC 309.146
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen							
March-July	N/A						35 IAC 302.206
August-February	5.5						3.5

\*Load Limits are calculated by using the formula:  $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$ .

Discharge Number(s) and Name(s): STP Outfall 008 (Proposed)

Load limits computed based on a design average flow (DAF) of 15.0 MGD (design maximum flow (DMF) of 37.5 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

<u>Parameter</u>	<u>LOAD LIMITS lbs/day</u> <u>DAF (DMF)*</u>			<u>CONCENTRATION</u> <u>LIMITS mg/L</u>			<u>Regulation</u>
	<u>Monthly</u> <u>Average</u>	<u>Weekly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	<u>Monthly</u> <u>Average</u>	<u>Weekly</u> <u>Average</u>	<u>Daily</u> <u>Maximum</u>	
CBOD <sub>5</sub>	1251 (3128)		2502 (6255)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids	1501 (3753)		3002 (7506)	12		24	35 IAC 304.120 40 CFR 133.102

pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform	Monitor only (May through October)						35 IAC 309.146
Chlorine Residual	0.05						35 IAC 302.208
Ammonia Nitrogen: As (N)							35 IAC 355 and 35 IAC 302
March	188 (469)	475 (1188)	676 (1689)	1.5	3.8	5.4	
April, May, Sept, Oct	188 (469)	475 (1188)	500 (1251)	1.5	3.8	4.0	
June-August	175 (438)	438 (1095)	500 (1251)	1.4	3.5	4.0	
Nov.-Feb.	375 (938)		676 (1689)	3.0		5.4	
Total Phosphorus (as P)	125 (313)	1.0					35 IAC 304.123
Total Nitrogen	Monitor only						35 IAC 309.146

	Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen				
March-July	N/A	6.0	5.0	35 IAC 302.206
August-February	5.5	4.0	3.5	

\*Load Limits are calculated by using the formula:  $8.34 \times (\text{Design Average and/or Maximum Flow in MGD}) \times (\text{Applicable Concentration in mg/L})$ .

This Permit contains an authorization to treat and discharge excess flow as follows:

Discharge Number(s) and Name(s): 010 Treated Combined Sewer Outfall Proposed (Pond Over Flow – Flows from 37.5 MGD to 112.5 MGD)

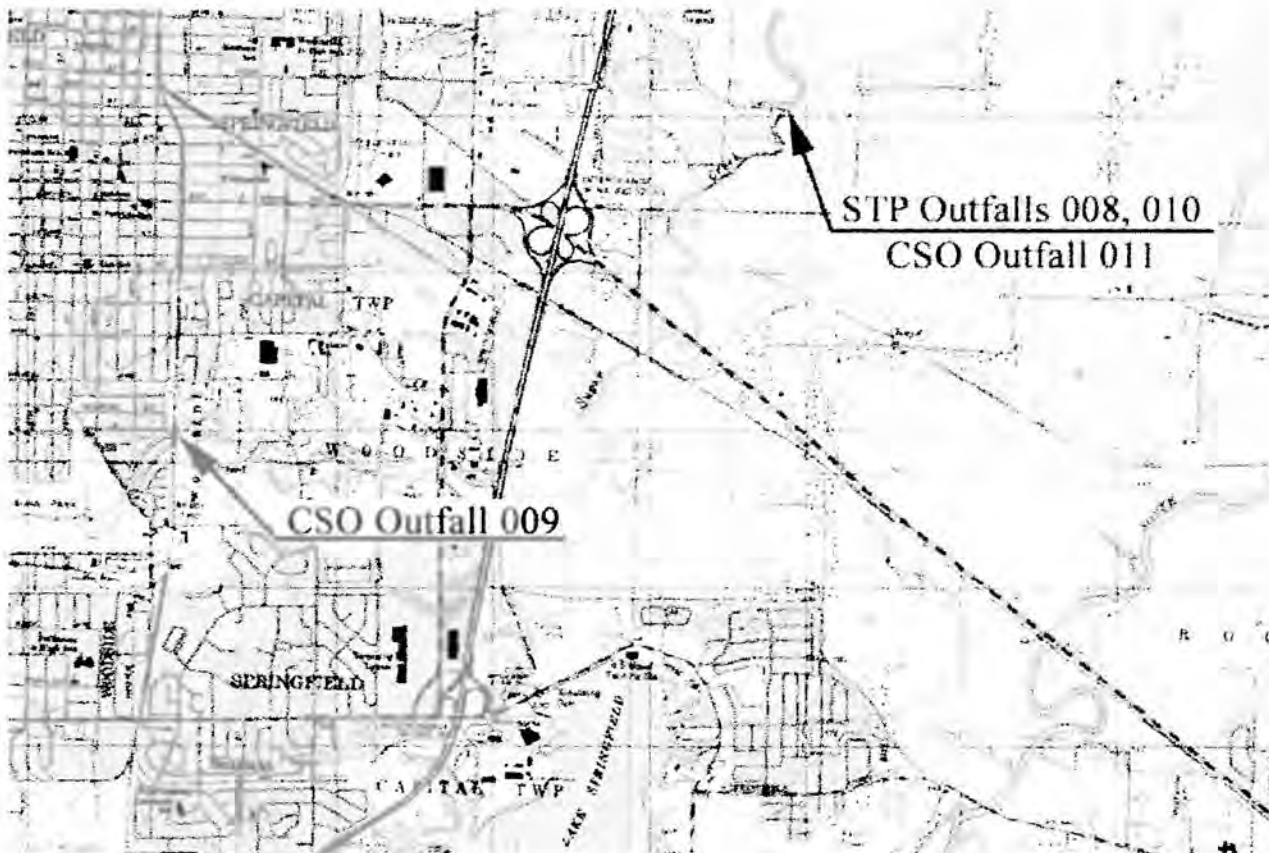
Discharge Number(s) and Name(s): 010 Treated Combined Sewer Outfall Existing (Pond Over Flow – Flows from 25 MGD to 100 MGD)

CONCENTRATION LIMITS (mg/L)		
<u>Parameter</u>	<u>Monthly Average</u>	<u>Regulation</u>
BOD <sub>5</sub>		40 CFR 133.102
Suspended Solids		40 CFR 133.102
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 mL	35 IAC 304.121
pH	Shall be in the range of 6 to 9 Standard Units	35 IAC 304.125
Chlorine Residual	0.75	35 IAC 304.208

This draft Permit also contains the following requirements as special conditions:

1. Reopening of this Permit to include different final effluent limitations.
2. Operation of the facility by or under the supervision of a certified operator.
3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
4. More frequent monitoring requirement without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.
5. Prohibition against causing or contributing to violations of water quality standards.

6. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.
7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.
8. Effluent sampling point location.
9. Controlling the sources of infiltration and inflow into the sewer system.
10. A requirement to monitor and a limit of 0.05 mg/L for residual chlorine when it is used.
11. The Permittee implements and administers an industrial pretreatment program pursuant to 40 CFR Section 403.
12. Burden reduction.
13. Submission of annual fiscal data.
14. A requirement for biomonitoring of the effluent.
15. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
16. An authorization of combined sewer and treatment plant discharges.
17. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.
18. CMOM.
19. Total nitrogen monitoring.
20. Notify agency of plant completion.
21. Stricter requirements shall be applicable.



## Antidegradation Assessment NPDES Permit No. IL0021971

The subject facility is proposing to replace the existing activated sludge facility with design average flow (DAF) of 10.0 MGD with a BNR activated sludge facility with a DAF of 15.0 MGD. The consultant has estimated that the wastewater being treated at the Sugar Creek facility will increase by 50% in the next twenty years. The District has given consideration to ammonia nitrogen and total phosphorus removal.

The facility is proposing to remove phosphorus and denitrify biologically. The NPDES permit will have a permit limit of 1.0 mg/L for phosphorous. Therefore, loading of phosphorus and nitrogen to the receiving stream will be reduced.

The information in this antidegradation assessment came from the January 2012 Wastewater Treatment Facilities Planning Report by Crawford, Murphy & Tilly, Inc.

### **Identification and Characterization of the Affected Water Body.**

The subject facility discharges to Sugar Creek at a point where 1.5 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. Sugar Creek (segment EOA-06) is a General Use water. Sugar Creek is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System* at this locality, nor is it given an integrity rating in that report. Sugar Creek is listed on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List as an impaired water body for aquatic life uses. Potential causes of aquatic life use impairment are given as alterations in stream-side vegetative cover (non-pollutant), boron, and total phosphorus. Sugar Creek is not designated as an enhanced water at this location pursuant to the dissolved oxygen water quality standard.

### **Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.**

The treated domestic waste that characterizes this proposed effluent would be similar to other treated effluents of largely domestic origin. Ammonia limits in the permit will be set at water quality standards, however; ammonia loading to the receiving stream will increase over existing background levels as the expanded effluent discharge will be allowed an average of 643.6 lbs/day (as a weighted average), up from the currently allowed level of 429.5 lbs/day (as a weighted average). Biochemical oxygen demand (BOD) permit limits will be set at the most stringent effluent standards applicable in 35 IAC 304.120. The stream will nonetheless experience an increase in loading in BOD as the expanded effluent discharge will be allowed an average of 3128 lbs/day, up from the currently allowed level of 2085 lbs/day. A dissolved oxygen model, submitted in the facility plan, was used to determine the impact of the expansion on the receiving stream. The model indicated that the dissolved oxygen difference between the current DAF of 10 MGD and the proposed DAF of 15 MGD will be 0.44 mg/L.

Phosphorus and total nitrogen loading will decrease as a result of the expanded facility removing phosphorus and denitrifying. The Agency is developing state water quality standards that will formulate the basis for future nutrient management strategies. Upon adoption of state standards and development of a management strategy, there may be additional nutrient reduction requirements imposed on this source. The Illinois Nutrient Standards Workgroup has been convened to develop nutrient standards and will strive to keep NPDES permitted dischargers aware of its findings, allowing them to anticipate future nutrient permit limits.

### **Fate and Effect of Parameters Proposed for Increased Loading.**

The BOD and ammonia discharged by this facility will decay into simpler and harmless byproducts by naturally occurring organisms in the receiving stream. Some of the nitrogen originating in the ammonia will remain in the stream in the form of nitrates or organic nitrogen. Ammonia and dissolved oxygen standards will be met in the receiving stream.

**Purpose and Social & Economic Benefits of the Proposed Activity.**

The proposed project continues to provide treatment capacity for future growth at the centralized treatment facilities that treats wastewater from Springfield, Rochester and the Lake Springfield area.

**Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.**

The facilities Plan investigated the feasibility of land application of the additional flow (5 MGD). This would require at least 2,169 acres. It was determined to not be feasible to land apply the additional flow.

The facility has proposed constructing a biological system to denitrify and remove total phosphorus.

**Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.**

On June 12, 2012, the IDNR EcoCAT web-based tool was used and indicated that there were no endangered/threatened species present in the vicinity of the discharge. The IDNR EcoCAT web-based tool did not terminate the consultation because of the nearby presence of wetlands; however, IDNR did terminate the consultation on June 15, 2012 via letter.

**Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by providing treatment capacity for future growth. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

NPDES Permit No. IL0021971

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Springfield Metro Sanitary District  
3000 North Eighth Street  
Springfield, Illinois 62707

Facility Name and Address:

Sugar Creek STP  
3300 Mechanicsburg Road  
Springfield, Illinois 62707  
(Sangamon County)

Receiving Waters: Sugar Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E.  
Manager, Permit Section  
Division of Water Pollution Control

SAK:BDF:11112101.bah

## NPDES Permit No. IL0021971

Effluent Limitations, Monitoring, and Reporting

## FINAL

Discharge Number(s) and Name(s): STP Outfall 008 (Existing)

Load limits computed based on a design average flow (DAF) of 10.0 MGD (design maximum flow (DMF) of 25.0 MGD).

From the effective date of this Permit until operational attainment of the proposed facility, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

<u>Parameter</u>	<u>LOAD LIMITS lbs/day</u>			<u>CONCENTRATION</u>			<u>Sample Frequency</u>	<u>Sample Type</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>		
Flow (MGD)							Continuous	
CBOD <sub>5</sub> **	834 (2085)		1668 (4170)	10		20	2 Days/Week	Composite
Suspended Solids	1001 (2502)		2002 (5004)	12		24	2 Days/Week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						2 Days/Week	Grab
Fecal Coliform	Monitor only (May through October)						1 Day/Month	Grab
Chlorine Residual						0.05	***	Grab
Ammonia Nitrogen:								
As (N)								
March	125 (313)	317 (792)	450 (1126)	1.5	3.8	5.4	5 Days/Week	Composite
April, May, Sept, Oct	125 (313)	317 (792)	334 (834)	1.5	3.8	4.0	5 Days/Week	Composite
June-August	117 (292)	292 (730)	334 (834)	1.4	3.5	4.0	5 Days/Week	Composite
Nov.-Feb.	250 (626)		450 (1126)	3.0		5.4	5 Days/Week	Composite
Total Phosphorus (as P)	Monitor Only						1 Day/Month	Composite
Total Nitrogen	Monitor only						1 Day/Month	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen								
March-July				N/A	6.0	5.0	2 Days/Week	Grab
August-February				5.5	4.0	3.5	2 Days/Week	Grab

\*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

\*\*Carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>) testing shall be in accordance with 40 CFR 136.

\*\*\*See Special Condition 10.

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be monitored May through October and reported on the DMR as a daily maximum value.

pH shall be reported on the DMR as minimum and maximum value.

Chlorine Residual shall be reported on the DMR as daily maximum value.

Dissolved oxygen shall be reported on the DMR as a minimum value.

Total phosphorus (as P) and total nitrogen shall be reported on the DMR as a daily maximum value.

## NPDES Permit No. IL0021971

Effluent Limitations, Monitoring, and Reporting

## FINAL

Discharge Number(s) and Name(s): STP Outfall 008 (Proposed)

Load limits computed based on a design average flow (DAF) of 15.0 MGD (design maximum flow (DMF) of 37.5 MGD).

From operational attainment of the proposed facility until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

<u>Parameter</u>	<u>LOAD LIMITS lbs/day</u>			<u>CONCENTRATION</u>			<u>Sample Frequency</u>	<u>Sample Type</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Daily Maximum</u>		
Flow (MGD)							Continuous	
CBOD <sub>5</sub> **	1251 (3128)		2502 (6255)	10		20	5 Days/Week	Composite
Suspended Solids	1501 (3753)		3002 (7506)	12		24	5 Days/Week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						5 Days/Week	Grab
Fecal Coliform	Monitor only (May through October)						1 Day/Month	Grab
Chlorine Residual						0.05	***	Grab
Ammonia Nitrogen:								
As (N)								
March	188 (469)	475 (1188)	676 (1689)	1.5	3.8	5.4	5 Days/Week	Composite
April, May, Sept, Oct	188 (469)	475 (1188)	500 (1251)	1.5	3.8	4.0	5 Days/Week	Composite
June-August	175 (438)	438 (1095)	500 (1251)	1.4	3.5	4.0	5 Days/Week	Composite
Nov.-Feb.	375 (938)		676 (1689)	3.0		5.4	5 Days/Week	Composite
Phosphorus (as P)	125 (313)			1.0			5 Day/Week	Composite
Total Nitrogen	Monitor only						1 Day/Month	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen								
March-July				N/A	6.0	5.0	5 Days/Week	Grab
August-February				5.5	4.0	3.5	5 Days/Week	Grab

\*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

\*\*Carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>) testing shall be in accordance with 40 CFR 136.

\*\*\*See Special Condition 10.

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be monitored May through October and reported on the DMR as a daily maximum value.

pH shall be reported on the DMR as minimum and maximum value.

Chlorine Residual shall be reported on the DMR as daily maximum value.

Dissolved oxygen shall be reported on the DMR as a minimum value.

Total phosphorus (as P) and total nitrogen shall be reported on the DMR as a monthly average and daily maximum value.

## NPDES Permit No. IL0021971

Effluent, Limitations, Monitoring, and Reporting

Discharge Number(s) and Name(s): 010 Treated Combined Sewage Outfall (Pond Over Flow)\*\*

These flow facilities shall not be utilized until the main treatment facility is receiving its maximum practical flow \*\*\*

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

CONCENTRATION LIMITS (mg/L)			
<u>Parameter</u>	<u>Monthly Average</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Total Flow (MG)		Daily When Discharging	Continuous
BOD <sub>5</sub>		Daily When Discharging	Grab
Suspended Solids		Daily When Discharging	Grab
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL	Daily When Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units	Daily When Discharging	Grab
Chlorine Residual	0.75	Daily When Discharging	Grab

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Fecal Coliform shall be reported on the DMR as daily maximum.

pH shall be reported on the DMR as a minimum and a maximum.

Chlorine Residual shall be reported on the DMR as monthly average.

\*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving the Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity

\*\*Flows from 25 MGD to 100 MGD for the existing facility and flows from 37.5 MGD to 112.5 MGD for the proposed facility.

NPDES Permit No. IL0021971

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Flow (MGD)	Continuous	
BOD <sub>5</sub>	2 Days/Week*	Composite
Suspended Solids	2 Days/Week*	Composite

\*Sampling frequency shall increase to 5 Days/Week upon completion of the expanded plant.

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

SPECIAL CONDITION 3. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

SPECIAL CONDITION 4. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR Section 122.63 and Without Public Notice.

SPECIAL CONDITION 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
Attention: Compliance Assurance Section, Mail Code # 19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

SPECIAL CONDITION 8. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 9. This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

SPECIAL CONDITION 10. For Discharge No. 008, any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted on the DMR's on a monthly basis.

SPECIAL CONDITION 11.

A. Publicly Owned Treatment Works (POTW) Pretreatment Program General Provisions

1. The Permittee shall implement and enforce its approved Pretreatment Program which was approved on October 23, 1985 and all approved subsequent modifications thereto. The Permittee shall maintain legal authority adequate to fully implement the Pretreatment Program in compliance with Federal (40 CFR 403), State, and local laws and regulations. All definitions in this section unless specifically otherwise defined in this section, are those definitions listed in 40 CFR 403.3. USEPA Region 5 is the Approval Authority for the administration of pretreatment programs in Illinois. The Permittee shall:

Special Conditions

- a. Develop and implement procedures to ensure compliance with the requirements of a pretreatment program as specified in 40 CFR 403.8 (f) (2).
  - b. Carry out independent inspection and monitoring procedures at least once per year, which will determine whether each significant industrial user (SIU) is in compliance with applicable pretreatment standards;
  - c. Evaluate whether each SIU needs a slug control plan or other action to control slug discharges. If needed, the SIU slug control plan shall include the items specified in 40 CFR 403.8(f)(2)(vi). For Industrial Users (IUs) identified as significant prior to November 14, 2005, this evaluation must have been conducted at least once by October 14, 2006; additional SIUs must be evaluated within 1 year of being designated an SIU;
  - d. Update its inventory of Industrial Users (IUs) at least annually and as needed to ensure that all SIUs are properly identified, characterized, and categorized;
  - e. Receive and review self monitoring and other IU reports to determine compliance with all pretreatment standards and requirements, and obtain appropriate remedies for noncompliance by any IU with any pretreatment standard and/or requirement;
  - f. Investigate instances of noncompliance, collect and analyze samples, and compile other information with sufficient care as to produce evidence admissible in enforcement proceedings, including judicial action;
  - g. Require development, as necessary, of compliance schedules by each industrial user to meet applicable pretreatment standards; and,
  - h. Maintain an adequate revenue structure and staffing levels for continued operation of the Pretreatment Program.
2. The Permittee shall issue/reissue permits or equivalent control mechanisms to all SIUs prior to expiration of existing permits or prior to commencement of discharge in the case of new discharges. The permits at a minimum shall include the elements listed in 40 CFR § 403.8(f)(1)(iii).
  3. The Permittee shall develop, maintain, and enforce, as necessary, local limits to implement the general and specific prohibitions in 40 CFR § 403.5 which prohibit the introduction of any pollutant(s) which cause pass through or interference and the introduction of specific pollutants to the waste treatment system from any source of nondomestic discharge.
  4. In addition to the general limitations expressed in Paragraph 3 above, applicable pretreatment standards must be met by all industrial users of the POTW. These limitations include specific standards for certain industrial categories as determined by Section 307(b) and (c) of the Clean Water Act, State limits, or local limits, whichever are more stringent.
  5. The USEPA and IEPA individually retain the right to take legal action against any industrial user and/or the POTW for those cases where an industrial user has failed to meet an applicable pretreatment standard by the deadline date regardless of whether or not such failure has resulted in a permit violation.
  6. The Permittee shall establish agreements with all contributing jurisdictions, as necessary, to enable it to fulfill its requirements with respect to all IUs discharging to its system.
  7. Unless already completed, the Permittee shall within one (1) year of the effective date of this Permit submit to USEPA and IEPA a proposal to modify and update its approved Pretreatment Program to incorporate Federal revisions to the general pretreatment regulations. The proposal shall include all changes to the approved program and the sewer use ordinance which are necessary to incorporate the revisions of the Pretreatment Streamlining Rule (which became effective on November 14, 2005), which are considered required changes, as described in the Pretreatment Streamlining Rule Fact Sheet 2.0: Required changes, available at: [http://cfpub.epa.gov/npdes/whatsnew.cfm?program\\_id=3](http://cfpub.epa.gov/npdes/whatsnew.cfm?program_id=3). This includes any necessary revisions to the Permittee's Enforcement Response Plan (ERP).
  8. Within 1 year from operational attainment of the proposed facility, the Permittee shall conduct a technical re-evaluation of its local limitations consistent with U.S. EPA's Local Limits Development Guidance (July 2004 and spreadsheet found at: <http://www.epa.gov/region5/water/npdestek/LocalLmt.XLS>), and submit the evaluation and any proposed revisions to its local limits to IEPA and U.S. EPA Region 5 for review and approval. To demonstrate technical justification for new local industrial user limits or justification for retaining existing limits, the following information must be submitted to U.S. EPA:
    - a. Total plant flow
    - b. Domestic/commercial pollutant contributions for pollutants of concern
    - c. Industrial pollutant contributions and flows

Special Conditions

- d. Current POTW pollutant loadings, including loadings of conventional pollutants
  - e. Actual treatment plant removal efficiencies, as a decimal (primary, secondary, across the wastewater treatment plant)
  - f. Safety factor to be applied
  - g. Identification of applicable criteria:
    - i. NPDES permit conditions
      - Specific NPDES effluent limitations
      - Water-quality criteria
      - Whole effluent toxicity requirements
      - Criteria and other conditions for sludge disposal
    - ii. Biological process inhibition
      - Nitrification
      - Sludge digester
    - iii. Collection system problems
  - h. The Permittee's sludge disposal methods (land application, surface disposal, incineration, landfill)
  - i. Sludge flow to digester
  - j. Sludge flow to disposal
  - k. % solids in sludge to disposal, not as a decimal
  - l. % solids in sludge to digester, not as a decimal
  - m. Plant removal efficiencies for conventional pollutants
  - n. If revised industrial user discharge limits are proposed, the method of allocating available pollutants loads to industrial users
  - o. A comparison of maximum allowable headworks loadings based on all applicable criteria listed in g, above
  - p. Pollutants that have caused:
    - i. Violations or operational problems at the POTW, including conventional pollutants
    - ii. Fires and explosions
    - iii. Corrosion
    - iv. Flow obstructions
    - v. Increased temperature in the sewer system
    - vi. Toxic gases, vapors or fumes that caused acute worker health and safety problems
    - vii. Toxicity found through Whole Effluent Toxicity testing
    - viii. Inhibition
  - q. Pollutants designated as "monitoring only" in the NPDES permit
  - r. Supporting data, assumptions, and methodologies used in establishing the information a through q above.
9. Modifications of your Pretreatment Program shall be submitted in accordance with 40 CFR § 403.18, which established conditions for substantial and nonsubstantial modifications. All requests should be sent in electronic format to [r5npdes@epa.gov](mailto:r5npdes@epa.gov), attention: NPDES Programs Branch.

B. Reporting and Records Requirements

- 1. The Permittee shall provide an annual report briefly describing the permittee's pretreatment program activities over the previous calendar year. Permittees who operate multiple plants may provide a single report providing all plant-specific reporting requirements are met. Such report shall be submitted no later than April 28th of each year to USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: Water Enforcement and Compliance Assurance Branch, and shall be in the format set forth in IEPA's POTW Pretreatment Report Package which contains information regarding:
  - a. An updated listing of the Permittee's significant industrial users, indicating additions and deletions from the previous year, along with brief explanations for deletions. The list shall specify which categorical Pretreatment standards, if any, are applicable to each Industrial User.
  - b. A descriptive summary of the compliance activities including numbers of any major enforcement actions, (i.e., administrative orders, penalties, civil actions, etc.), and the outcome of those actions. This includes an assessment of the compliance status of the Permittee's industrial users and the effectiveness of the Permittee's Pretreatment Program in meeting its needs and objectives.
  - c. A description of all substantive changes made to the Permittee's Pretreatment Program. Changes which are "substantial modifications" as described in 40 CFR § 403.18(c) must receive prior approval from the USEPA.
  - d. Results of sampling and analysis of POTW influent, effluent, and sludge.

Special Conditions

- e. A summary of the findings from the priority pollutants sampling. As sufficient data becomes available the IEPA may modify this Permit to incorporate additional requirements relating to the evaluation, establishment, and enforcement of local limits for organic pollutants. Any permit modification is subject to formal due process procedures pursuant to State and Federal law and regulation. Upon a determination that an organic pollutant is present that causes interference or pass through, the Permittee shall establish local limits as required by 40 CFR § 403.5(c).
2. The Permittee shall maintain all pretreatment data and records for a minimum of three (3) years. This period shall be extended during the course of unresolved litigation or when requested by the IEPA or the Regional Administrator of USEPA. Records shall be available to USEPA and the IEPA upon request.
3. The Permittee shall establish public participation requirements of 40 CFR 25 in implementation of its Pretreatment Program. The Permittee shall at least annually, publish the names of all IU's which were in significant noncompliance (SNC), as defined by 40 CFR § 403.8(f)(2)(viii), in a newspaper of general circulation that provides meaningful public notice within the jurisdictions served by the Permittee or based on any more restrictive definition of SNC that the POTW may be using.
4. The Permittee shall provide written notification to the USEPA, Region 5, 77 West Jackson Blvd., Chicago, Illinois 60604, Attention: NPDES Programs Branch and to the Deputy Counsel for the Division of Water Pollution Control, IEPA, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 within five (5) days of receiving notice that any Industrial User of its sewage treatment plant is appealing to the Circuit Court any condition imposed by the Permittee in any permit issued to the Industrial User by Permittee. A copy of the Industrial User's appeal and all other pleadings filed by all parties shall be mailed to the Deputy Counsel within five (5) days of the pleadings being filed in Circuit Court.

C. Monitoring Requirements

1. The Permittee shall monitor its influent, effluent and sludge and report concentrations of the following parameters on monitoring report forms provided by the IEPA and include them in its annual report. Samples shall be taken at semi-annual intervals at the indicated reporting limit or better and consist of a 24-hour composite unless otherwise specified below. Sludge samples shall be taken of final sludge and consist of a grab sample reported on a dry weight basis.

STORET CODE	PARAMETER	Minimum reporting limit
01097	Antimony	0.07 mg/L
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01012	Beryllium	0.005 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hex) (grab not to exceed 24 hours)*	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide* (grab) (available **** or amenable to chlorination)	5.0 ug/L
00720	Cyanide (total) (grab)	5.0 ug/L
00951	Fluoride*	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)*	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (effluent grab)***	1.0 ng/L**
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)*	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01059	Thallium	0.3 mg/L
01092	Zinc	0.025 mg/L

\* Influent and effluent only

\*\*1 ng/L = 1 part per trillion.

\*\*\*Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E, other approved methods may be used for influent (composite) and sludge.

\*\*\*\* USEPA Method OIA-1677.

Special Conditions

Minimum reporting limits are defined as - (1) The minimum value below which data are documented as non-detects. (2) Three to ten times the method detection limit. (3) The minimum value of the calibration range.

All sample containers, preservatives, holding times, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR 136.

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined including all oxidation states. Where constituents are commonly measured as other than total, the phase is so indicated.

2. The Permittee shall conduct an analysis for the one hundred and ten (110) organic priority pollutants identified in 40 CFR 122 Appendix D, Table II as amended. This monitoring shall be done annually and reported on monitoring report forms provided by the IEPA and shall consist of the following:

- a. The influent and effluent shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. The sampling shall be done during a day when industrial discharges are expected to be occurring at normal to maximum levels.

Samples for the analysis of acid and base/neutral extractable compounds shall be 24-hour composites.

Five (5) grab samples shall be collected each monitoring day to be analyzed for volatile organic compounds. A single analysis for volatile pollutants (Method 624) may be run for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than one (1) mL of each grab included in the composite.

Wastewater samples must be handled, prepared, and analyzed by GC/MS in accordance with USEPA Methods 624 and 625 of 40 CFR 136 as amended.

- b. The sludge shall be sampled and analyzed for the one hundred and ten (110) organic priority pollutants. A sludge sample shall be collected concurrent with a wastewater sample and taken as final sludge.

Sampling and analysis shall conform to USEPA Methods 624 and 625 unless an alternate method has been approved by IEPA.

- c. Sample collection, preservation and storage shall conform to approved USEPA procedures and requirements.

3. In addition, the Permittee shall monitor any new toxic substances as defined by the Clean Water Act, as amended, following notification by the IEPA.

4. Permittee shall report any noncompliance with effluent or water quality standards in accordance with Standard Condition 12(e) of this Permit.

5. Analytical detection limits shall be in accordance with 40 CFR 136. Minimum detection limits for sludge analyses shall be in accordance with 40 CFR 503.

D. Pretreatment Reporting

USEPA Region 5 is the Approval Authority for administering the pretreatment program in Illinois. All requests for modification of pretreatment program elements should be submitted in redline/strikeout electronic format and should be sent to USEPA at [r5npdes@epa.gov](mailto:r5npdes@epa.gov).

Permittee shall upon notice from USEPA, modify any pretreatment program element found to be inconsistent with 40 CFR 403.

SPECIAL CONDITION 12. The Permittee has undergone a Monitoring Reduction review for the existing facility and the influent and effluent sample frequency has been reduced for BOD<sub>5</sub>, CBOD<sub>5</sub>, total suspended solids, dissolved oxygen, pH and ammonia nitrogen due to sustained compliance. The IEPA will require that the influent and effluent sampling frequency for these parameters be increased to 5 days/week if effluent deterioration occurs due to increased wasteload, operational, maintenance or other problems. The increased monitoring will be required Without Public Notice when a permit modification is received by the Permittee from the IEPA.

SPECIAL CONDITION 13. During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Special Conditions

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

SPECIAL CONDITION 14. The Permittee shall conduct biomonitoring of the effluent from Outfall 008.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Unless substitute tests are pre-approved, the following tests are required:
  - a. Fish - 96 hour static LC<sub>50</sub> Bioassay using fathead minnows (*Pimephales promelas*).
  - b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using *Ceriodaphnia*.
2. Test Requirements - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Sample collection and testing must be conducted in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit. Effluent samples must be analyzed for ammonia given that this parameter has been associated with acute toxicity in past testing.
3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Results from ammonia analyses, as well as any other parameter believed to contribute to effluent toxicity, must be included in the bioassay report.
4. Toxicity – Mixing for acute whole effluent toxicity is granted providing effluent does not exceed 1.0 Toxic Units outside of the ZID and toxicity only occurs in response to a parameter that has been granted a ZID in this permit. Should a bioassay result in greater than 1.0 Toxic Units outside of the ZID, or should the 100% effluent treatment exceed 1.0 Toxic Units due to an unknown toxicant or a parameter that has not been granted a ZID, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within one (1) week of becoming available to the Permittee. Should any of the additional bioassays result in greater than 1.0 Toxic Units outside of the ZID, or should the 100% effluent treatment exceed 1.0 Toxic Unit due to an unknown toxicant or a parameter that has not been granted a ZID, the Permittee may wish to contact the IEPA to request the discontinuance of further sampling at which time the IEPA may require the Permittee to begin the toxicity reduction evaluation and identification as outlined below.
5. Toxicity Identification and Reduction Evaluation - Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatment, the Permittee must contact the IEPA within one (1) day of the results becoming available to the Permittee and begin the toxicity identification evaluation process in accordance with Methods for Aquatic Toxicity Identification Evaluations, EPA/600/6-91/003. The IEPA may also require, upon notification, that the Permittee prepare a plan for toxicity reduction evaluation to be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, which shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 15. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Special Conditions

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 25 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which the sewage sludge is actually used or disposed.

The Permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section  
Mail Code #19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 16.

AUTHORIZATION OF  
COMBINED SEWER AND TREATMENT PLANT DISCHARGES

The IEPA has determined that at least a portion of the collection system consists of combined sewers. References to the collection system and the sewer system refer only to those parts of the system which are owned and operated by the Permittee unless otherwise indicated. The Permittee is authorized to discharge from the overflow(s)/bypass(es) listed below provided the diversion structure is located on a combined sewer and the following terms and conditions are met:

<u>Discharge Number</u>	<u>Location</u>	<u>Receiving Water</u>
009	Harvard Park Combined Over Flow	Unnamed Tributary to Sugar Creek
011	STP CSO	Sugar Creek

A. CSO Monitoring, Reporting and Notification Requirements

- The Permittee shall monitor the frequency of discharge (number of discharges per month) and estimate the duration (in hours) of each discharge from each outfall listed in this Special Condition. Estimates of storm duration and total rainfall shall be provided for each storm event.

Start Date	Rainfall Duration (hrs.)	Rainfall Amount (in.)	CSO Outfall #	Outfall Description	Estimated Duration of CSO Discharge (hrs)	Estimated Volume of CSO Discharge (MG)
------------	-----------------------------	--------------------------	---------------	------------------------	--	---

For frequency reporting, all discharges from the same storm, or occurring within 24 hours, shall be reported as one. The date that a discharge commences shall be recorded for each outfall. Reports shall be in the form specified by the IEPA and on forms

Special Conditions

provided by the IEPA (e.g., Form IL 532-2471, or updated form of same). These forms shall be submitted to the IEPA monthly with the DMRs and covering the same reporting period as the DMRs. Parameters (other than flow frequency and volume), if required in this Permit, shall be sampled and reported as indicated in the transmittal letter for such report forms.

2. All submittals listed in this Special Condition can be mailed to the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Attention: CSO Coordinator, Compliance Assurance Section

All submittals hand carried shall be delivered to 1021 North Grand Avenue East.

B. CSO Treatment Requirements

3. All combined sewer overflows shall be given sufficient treatment to prevent pollution and the violation of applicable water quality standards and to the extent required by the federal Clean Water Act, the 1994 CSO Control Policy including any amendments made by the Wet Weather Water Quality Act of 2000.
4. All CSO discharges authorized by this Permit shall be treated, in whole or in part, to the extent necessary to prevent accumulations of sludge deposits, floating debris and solids in accordance with 35 Ill. Adm. Code 302.203 and to prevent depression of oxygen levels below the applicable water quality standards.
5. Overflows during dry weather are prohibited. Dry weather overflows shall be reported to the IEPA pursuant to Standard Condition 12(f) of this Permit (24 hour notice).
6. The collection system shall be operated to optimize transport of wastewater flows and to minimize CSO discharges and the treatment system, if applicable, shall be operated to maximize treatment of wastewater flows.

C. CSO Nine Minimum Controls

7. The Permittee shall comply with the nine minimum controls contained in the National CSO Control Policy published in the Federal Register on April 19, 1994. The nine minimum controls are:
- a. Proper operation and maintenance programs for the sewer system and the CSOs;
  - b. Maximum use of the collection system for storage;
  - c. Review and modification of pretreatment requirements to assure CSO impacts are minimized;
  - d. Maximization of flow to the POTW for treatment;
  - e. Prohibition of CSOs during dry weather;
  - f. Control of solids and floatable materials in CSOs;
  - g. Pollution prevention programs which focus on source control activities;
  - h. Public notification to ensure that citizens receive adequate information regarding CSO occurrences and CSO impacts; and,
  - i. Monitoring to characterize impacts and efficiency of CSO controls.

A CSO pollution prevention plan (PPP) shall be developed by the Permittee unless one has already been prepared for this collection system. Any previously-prepared PPP shall be reviewed, and revised if necessary, by the Permittee to address the items contained in Chapter 8 of the U.S. EPA guidance document, Combined Sewer Overflows, Guidance For Nine Minimum Controls, and any items contained in previously-sent review documents from the IEPA concerning the PPP. Combined Sewer Overflows, Guidance For Nine Minimum Controls is available on line at <http://www.epa.gov/npdes/pubs/owm0030.pdf>. The PPP (or revised PPP) shall be presented to the general public at a public information meeting conducted by the Permittee annually during the term of this Permit. The Permittee shall submit documentation that the pollution prevention plan complies

Special Conditions

with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the effective date of this Permit and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue, and two (2) copies of the "CSO Pollution Prevention Plan Certification" one (1) with original signatures. This certification form is available online at <http://www.epa.state.il.us/water/permits/waste-water/forms/cso-pol-prev.pdf>. Following the public meeting, the Permittee shall implement the pollution prevention plan and shall maintain a current pollution prevention plan, updated to reflect system modifications, on file at the sewage treatment works or other acceptable location and made available to the public. The pollution prevention plan revisions shall be submitted to the IEPA one (1) month from the revision date.

D. Sensitive Area Considerations

8. Pursuant to Section II.C.3 of the federal CSO Control Policy of 1994, sensitive areas are any water likely to be impacted by a CSO discharge which include one or more of the following criteria: (1) designated as an Outstanding National Resource Water; (2) found to contain shellfish beds; (3) found to contain threatened or endangered aquatic species or their habitat; (4) used for primary contact recreation; (5) National Marine Sanctuaries; or, (6) within the protection area for a drinking water intake structure.

The IEPA has tentatively determined that none of the outfalls listed in this Special Condition discharge to sensitive areas. However, if information becomes available that causes the IEPA to reverse this determination, the IEPA will notify the Permittee in writing. Upon the date contained in the notification letter, the Permittee shall revise the LTCP and schedule to eliminate or relocate these outfalls. If elimination or relocation is not economically feasible or technically achievable the permittee shall submit a revised plan and schedule for treating the discharge. Such justification shall be in accordance with Section II.C.3 of the National CSO Control Policy.

E. CSO Operational and Maintenance Plans

9. The IEPA reviewed and accepted a CSO operational and maintenance plan "CSO O&M plan" on February 9, 1996 prepared for this sewerage system. The Permittee shall fully implement the approved plan and review and revise, if needed, the CSO O&M plan to reflect system changes.

The CSO O&M plan shall be presented to the general public at a public information meeting conducted by the Permittee within nine (9) months of the effective date of this Permit or within nine (9) months of the CSO system being modified. The Permittee shall submit documentation that the CSO O&M plan complies with the requirements of this Permit and that the public information meeting was held. Such documentation shall be submitted to the IEPA within twelve (12) months of the effective date of this Permit or within three (3) months of the public meeting and shall include a summary of all significant issues raised by the public, the Permittee's response to each issue, and two (2) copies of the "CSO Operational Plan Checklist and Certification", one (1) with original signatures. Copies of the "CSO Operational Plan Checklist and Certification" are available online at <http://www.epa.state.il.us/water/permits/waste-water/forms/cso-checklist.pdf>. Following the public meeting, the Permittee shall maintain a current CSO O & M plan, updated to reflect system modifications, on file at the sewage treatment works or other acceptable location and made available to the public. The CSO O & M plan revisions shall be submitted to the IEPA one (1) month from the revision date.

The objectives of the CSO O&M plan are to reduce the total loading of pollutants and floatables entering the receiving stream and to ensure that the Permittee ultimately achieves compliance with water quality standards. These plans, tailored to the local government's collection and waste treatment systems, shall include mechanisms and specific procedures where applicable to ensure:

- a. Collection system inspection on a scheduled basis;
- b. Sewer, catch basin, and regulator cleaning and maintenance on a scheduled basis;
- c. Inspections are made and preventive maintenance is performed on all pump/lift stations;
- d. Collection system replacement, where necessary;
- e. Detection and elimination of illegal connections;
- f. Detection, prevention, and elimination of dry weather overflows;
- g. The collection system is operated to maximize storage capacity and the combined sewer portions of the collection system are operated to delay storm entry into the system; and,
- h. The treatment and collection systems are operated to maximize treatment.

Special ConditionsF. Sewer Use Ordinances

10. The Permittee, within six (6) months of the effective date of this Permit, shall review and where necessary, modify its existing sewer use ordinance to ensure it contains provisions addressing the conditions below. If no ordinance exists, such ordinance shall be developed and implemented within six (6) months from the effective date of this Permit. Upon completion of the review of the sewer use ordinance(s), the Permittee shall submit two (2) copies of a completed "Certification of Sewer Use Ordinance Review", one (1) with original signatures. Copies of the certification form can be obtained on line at <http://www.epa.state.il.us/water/permits/waste-water/forms/sewer-use.pdf>. The Permittee shall submit copies of the sewer use ordinance(s) to the IEPA one (1) month from the revision date. Sewer use ordinances are to contain specific provisions to:
- a. Prohibit introduction of new inflow sources to the sanitary sewer system;
  - b. Require that new sanitary sewer construction tributary to the combined sewer system be designed to minimize and/or delay inflow contribution to the combined sewer system;
  - c. Require that inflow sources on the combined sewer system be connected to a storm sewer, in accordance with the approved Long Term Control Plan;
  - d. Provide that any new building domestic sewage connection shall be distinct from the building inflow connection;
  - e. Assure that CSO impacts from industrial and/or commercial sources are minimized and control by determining which industrial and/or commercial discharges that are tributary to CSOs; and,
  - f. Assure that the owners of all publicly owned systems with sewers tributary to the Permittee's collection system have procedures in place adequate to ensure that the objectives, mechanisms, and specific procedures given in Paragraph 10 of this Special Condition are achieved.

The Permittee shall enforce the applicable sewer use ordinances.

G. CSO Long-Term Control Planning and Compliance with Water Quality Standards

11. A. Pursuant to Section 301 of the federal Clean Water Act, 33 U.S.C. § 1311 and 40 CFR § 122.4, discharges from the CSOs, including the outfalls listed in this Special Condition and any other outfall listed as a "Treated Combined Sewage Outfall", shall not cause or contribute to violations of applicable water quality standards or cause use impairment in the receiving waters. In addition, discharges from CSOs shall comply with all applicable parts of 35 Ill. Adm. Code 306.305(a), (b), (c), and (d).
- B. The long term control plan (LTCP) dated May 31, 2011 has been received and once approved, this permit will be modified to incorporate the approved LTCP into this permit. All provisions of this Special Condition shall stay in effect prior to and after completion of construction. Pursuant to Section I.C.1 and Section II.C.9 of the Policy, the Permittee shall develop a post-construction water quality monitoring program adequate to verify compliance with water quality standards and to verify protection of designated uses in the receiving water(s) and to ascertain the effectiveness of CSO controls. Guidance on post construction monitoring plans is available at: [http://www.epa.gov/npdes/pubs/final\\_draft\\_cso\\_pccm\\_guidance.pdf](http://www.epa.gov/npdes/pubs/final_draft_cso_pccm_guidance.pdf). This program shall contain a plan that details the monitoring protocols to be followed, including any necessary effluent and ambient monitoring, and if appropriate, other monitoring protocols such as biological assessments, whole effluent toxicity testing, and sediment sampling. This plan shall be presented to the public at an informational meeting 15 months prior to construction completion. The Permittee shall submit 12 months prior to construction completion a summary of all significant issues raised by the public, the Permittee's response to each issue, and three (3) copies of the final plan (revised following the public meeting, if necessary) implementing the post-construction monitoring program. The post-construction monitoring plan shall be implemented within six (6) months of the date of IEPA approval. The Permittee shall respond to an IEPA review letter in writing within ninety (90) days of the date of such an initial review letter and within thirty (30) days of any subsequent review letter(s), if any. Within thirty (30) months of the approval of the plan, the results shall be submitted to the IEPA along with recommendations and conclusions as to whether or not the discharges from any of the CSOs (treated or untreated) authorized by this Permit are causing or contributing to violations of applicable water quality standards or causing use impairment in the receiving water(s).
- c. Should the results of the post-construction water quality monitoring plan or if information becomes available that causes IEPA to conclude that the discharges from any of the CSOs (treated or untreated) authorized to discharge under this Permit are causing or contributing to violations of water quality standards or are causing use impairment in the receiving water(s), the IEPA will notify the Permittee in writing. Upon receiving such notification, the Permittee shall develop and implement a CSO Long-Term Control Plan (LTCP) for assuring that the discharges from the CSOs (treated or

Special Conditions

untreated) authorized in this Permit comply with the provisions of Paragraph 10.a above. The LTCP shall contain all applicable elements of Paragraph 10.d below including a schedule for implementation and provisions for re-evaluating compliance with applicable standards and regulations after complete implementation. Three (3) copies of the LTCP shall be submitted to the IEPA within twelve (12) months of receiving the IEPA written notice. The LTCP shall be:

1. Consistent with Section II.C.4.a.i of the Policy; or,
  2. Consistent with either Section II.C.4.a.ii, Section II.C.4.a.iii, or Section II.C.4.b of the Policy and be accompanied by data sufficient to demonstrate that the LTCP, when completely implemented, will be sufficient to meet water quality standards.
- d. Pursuant to the Policy, the required components of the LTCP include the following:
1. Characterization, monitoring, and modeling of the Combined Sewer System (CSS);
  2. Consideration of Sensitive Areas;
  3. Evaluation of alternatives;
  4. Cost/Performance considerations;
  5. Revised CSO Operational Plan;
  6. Maximizing treatment at the treatment plant;
  7. Implementation schedule;
  8. Post-Construction compliance monitoring program; and
  9. Public participation.

Following submittal of the LTCP, the Permittee shall respond to any initial IEPA review letter in writing within ninety (90) days of the date of such a review letter, and within thirty (30) days of any subsequent review letter(s), if any. Implementation of the LTCP shall be as indicated by IEPA in writing or other enforceable mechanism.

12. A public notification program in accordance with Section II.B.8 of the federal CSO Control Policy of 1994 shall be developed employing a process that actively informs the affected public. The program shall include at a minimum public notification of CSO occurrences and CSO impacts, with consideration given to including mass media and/or Internet notification. The Permittee shall post and maintain signs in waters likely to be impacted by CSO discharges at the point of discharge and at points where these waters are used for primary contact recreation. Signage's message should be visible from both shoreline and water vessel approach (if appropriate), respectively. Provisions shall be made to include modifications of the program when necessary and notification to any additional member of the affected public. The program shall be presented to the general public at a public information meeting conducted by the Permittee. The Permittee shall conduct the public information meeting providing a summary and status of the CSO control program annually during the term of this Permit. The Permittee shall submit documentation that the public information meeting was held, shall submit a summary of all significant issues raised by the public and the Permittee's response to each issue, and shall identify any modifications to the program as a result of the public information meeting within 60 days of holding the public meeting. The Permittee shall submit copies of the public notification program to the IEPA upon written request.
13. If any of the CSO discharge points listed in this permit are eliminated, or if additional CSO discharge points, not listed in this permit, are discovered, the Permittee shall notify the IEPA in writing within one (1) month of the respective outfall elimination or discovery. Such notification shall be in the form of a request for the appropriate modification of this NPDES Permit.

H. Summary of Compliance Dates in this CSO Special Condition

14. The following summarizes the dates that submittals contained in this Special Condition are due at the IEPA (unless otherwise indicated):

Submission of CSO Monitoring Data (Paragraph 1)	25th of every month
Submission of Revised CSO O&M Plan (Paragraph 9)	1 month from revision date
Elimination of a CSO or Discovery of Additional CSO elimination	1 month from discovery or Locations (Paragraph 13)
Certification of Sewer Use Ordinance Review (Paragraph 10)	6 months from the effective date of this Permit
Conduct OMP Public Information Meeting (Paragraph 9) <b>No Submittal Due with this Milestone</b>	9 months from the effective date of this Permit
Submit Pollution Prevention Certification and OMP Certification	12 months from the effective date of this Permit

Special Conditions

(Paragraphs 7 and 9)

Submit PN Information Meeting Summary (Paragraph 12)

60 days after public meeting

Implement Post-Construction Monitoring Plan (Paragraph 11)

6 months from the date of IEPA plan approval

**No Submittal Due with this Milestone**

All submittals listed in this Special Condition can be mailed to the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Attention: CSO Coordinator, Compliance Assurance Section

All submittals hand carried shall be delivered to 1021 North Grand Avenue East.

I. Reopening and Modifying this Permit

15. The IEPA may initiate a modification for this Permit at any time to include requirements and compliance dates which have been submitted in writing by the Permittee and approved by the IEPA, or other requirements and dates which are necessary to carry out the provisions of the Illinois Environmental Protection Act, the Clean Water Act, or regulations promulgated under those Acts. Public Notice of such modifications and opportunity for public hearing shall be provided.

SPECIAL CONDITION 17. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study or upon completion of an alternate Water Quality Study.

SPECIAL CONDITION 18.

The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement backups and ensuring that overflows or backups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. Overflows from sanitary sewers are expressly prohibited by Ill. Adm. Code 306.304. In order to accomplish these goals, the Permittee shall develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan within twelve (12) months of the effective date of this Permit or review and revise any existing plan accordingly. The Permittee shall modify the Plan to incorporate any comments that it receives from IEPA and shall implement the modified plan as soon as possible. The Permittee should work as appropriate, in consultation with affected authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee's facilities are not capable of conveying and treating the flow for which they are designed.

The CMOM plan shall include the following elements:

## a. Measures and Activities:

1. A complete map and system inventory for the collection system owned and operated by the Permittee;
2. Organizational structure; budgeting; training of personnel; legal authorities; schedules for maintenance, sewer system cleaning, and preventative rehabilitation; checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
3. Documentation of unplanned maintenance;
4. An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and backups occur or are likely to occur; use flow monitoring as necessary;
5. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee; and
6. Scheduled inspections and testing.

## b. Design and Performance Provisions:

1. Monitor the effectiveness of CMOM;
2. Upgrade the elements of the CMOM plan as necessary; and
3. Maintain a summary of CMOM activities.

Special Conditions

## c. Overflow Response Plan:

1. Know where overflows and backups within the facilities owned and operated by the Permittee occur;
2. Respond to each overflow or backup to determine additional actions such as clean up; and
3. Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow/infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan.

## d. System Evaluation Plan:

1. Summary of existing SSO and Excessive I/I areas in the system and sources of contribution;
2. Evaluate plans to reduce I/I and eliminate SSOs;
3. Special provisions for Pump Stations and force mains and other unique system components; and
4. Construction plans and schedules for correction.

## e. Reporting and Monitoring Requirements:

1. Program for SSO detection and reporting; and
2. Program for tracking and reporting basement back-ups, including general public complaints.

## f. Third Party Notice Plan:

1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
3. Identifies who shall receive the notification;
4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
5. Includes a description of the lines of communication; and
6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

For additional information concerning USEPA CMOM guidance please refer to this following web site address.  
[http://www.epa.gov/npdes/pubs/cmom\\_guide\\_for\\_collection\\_systems.pdf](http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf)

SPECIAL CONDITION 19. The Permittee shall notify the IEPA in writing of any operational deficiencies and corrective measures to be taken if the expanded treatment plant exceeds a daily maximum concentration value of 10 mg/l of Total Nitrogen in the effluent. Correspondence shall be directed to:

Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section, Mail Code #19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Illinois Environmental Protection Agency  
Bureau of Water  
Springfield Field Office, Mail Code #10  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 20. The Permittee shall notify the IEPA in writing once the treatment plant expansion has been completed. A letter stating the date that the expansion was completed shall be sent to the following address within fourteen (14) days of the expansion becoming operational:

Illinois Environmental Protection Agency  
Bureau of Water  
Compliance Assurance Section, Mail Code #19  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

SPECIAL CONDITION 21. To the extent different requirements are imposed by the Permittee's approved pretreatment program and this Permit, the stricter requirements shall be applicable.